

An Essay on the  
*Cicula maculata*

by Marcus C. Burk  
 of Frederick colly Virginia

1812

*Nulla quidem est philosophia, prae aut historiae  
 naturalis, quam a medicinae studio exstima-  
 re alienum. Mæcenas ad.*

And may we not yet look for the discovery of  
 medicine as important to mankind as *Quina*, the  
*Bark*, & *Mercury*. — *Esoppeus Barlow.*

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In reflecting on the various means by which we have been led to our discoveries in Nature, we have too frequently to deplore the fate of genius, of friends, of relations, who by the eager pursuit of knowledge, or by accident, have been destined to give birth to discoveries, the fruits of which an untimely death has prevented them from enjoying. — Amongst the causes contributing to the production of this effect, may be considered the *Picuta Maculata*, an article, of which the poisonous qualities though sufficiently established, are not so generally known as the safety of the inhabitants of a country abounding with it demands.

To the consideration of this subject I am impelled not only by its intrinsic importance, but by the stringency of fraternal affection, which moves me to convert to advantage a misfortune which is irreparable, and to warn others against incurring it.

To the relations proper to this plant I owe the life of a dear relation, a brother, whose strength being,

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and amiable qualities induced him to carry a guarantee, & render him the favor of his most affectionate parents, who had anxiously hoped to have joined in him the comfort of declining age.

These considerations, while they awaken all those sensations which are their natural result, inspire me with fresh vigour to the research. — And should I fortuitously suggest any thing which may tend, even indirectly, to the benefit of mankind, it will afford some alleviation to the distress occasioned by the loss of so dear a relation.

I regret that my situation during the last summer did not admit of my making the experiments; I hoped to have been able to continue them after I came hither, but I did not bring with me a sufficient quantity of the plant. — And if I had my requisite fluids would have been an obstacle to my conducting them properly. — Under these circumstances I hope you will not be satisfied with them ~~any more~~ which have been hastily made by

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one unaccustomed to aspermatophytes, until he shall  
have more time to devote to the subject. —

The *Cicuta maculata* is a plant of the nat-  
ural order umbellifera. — It grows abundantly in the  
United States, particularly in the moist meadows of  
Virginia. — It is there known by the names of Wild  
parsnip & Wild carrot. — It puts forth early in the  
spring, blossoms in June & its seed ripen in Septem-  
ber & October. — It generally grows to the height of  
four or six feet. — It has a large hollow stalk,  
about the size of the middle finger. It is a compound  
stem & dichotomous or forked. The leaves are oblong lan-  
ceolate & serrate. — The seed is small & oval about the  
size of the pinhead. — The root is horizontal & tuberous,  
having a number of radicles shooting out from the side.  
The whole plant is most frequently green, but some-  
times the stalk inclines <sup>to white</sup>, & of too purple particularly  
about the joints.

To the small this plant is to most persons ex-

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extremely disagreeable. - The leaves are somewhat bit-  
ter aromatic & unpleasant to the taste. - The taste of  
the root is to some persons agreeable, but to me, very much  
the reverse (perhaps from association, having never tas-  
ted it, till I had intirely lost its poisonous effects)  
Its taste & appearance have caused it to be mistaken  
for the Sweet anise, a mistake, which has in several  
instances, proved fatal to the unfortunate doers of that  
root. -

I have not discovered that any of our animals feed  
on this plant - Dogs carefully avoid it, though they  
so greedily devour most roots. I have frequently  
thrown the whole plant to them & never saw them  
touch any part of it. - On examining the  
plant in the middle of Sept<sup>r</sup> I found it quite gel-  
-low, stripped of its leaves & covered by insects vermin.  
- being those which are seen on the Cabbages.

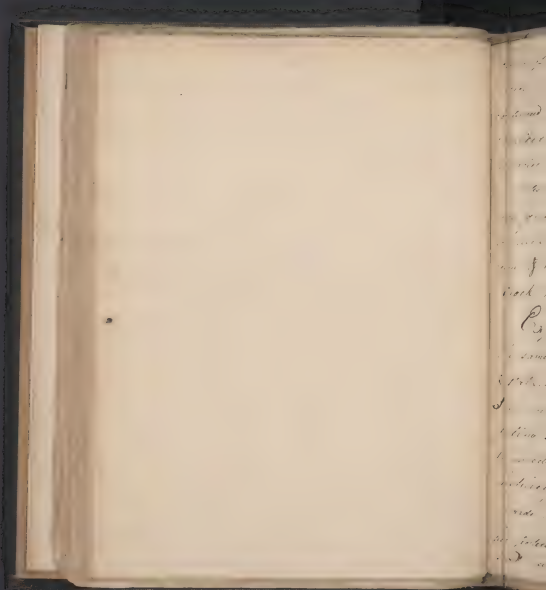
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(The following words in the Appendix of Dr. (with which) are  
a significant matter. In this island  
particularly I see that this society contains some & no  
The, however, afforded, rather a very <sup>large</sup> number  
But, in our knowledge of the plants in, we may  
as to the effects, no doubt depends on the various  
principles, which Chemists have discovered in them  
Vegetables &c. But this principle is of subtle a nature  
that it would elude the experiments of an unexperienced  
Chemist. Therefore did not succeed in obtaining  
separately — The original is in French and requires  
so a great deal of the conversion of the vegetable  
Kingdom — I'm understanding several rules have been  
laid down for such investigations, but vegetable sub-  
stances are so complicated, that therefore, the means  
of the analytical are almost an infinitely inadequate  
and vegetables are composed of a number of different  
different elements some of which the present principles  
given, would not get us find some of these are in some  
of the elements while others are poisonous in the nature

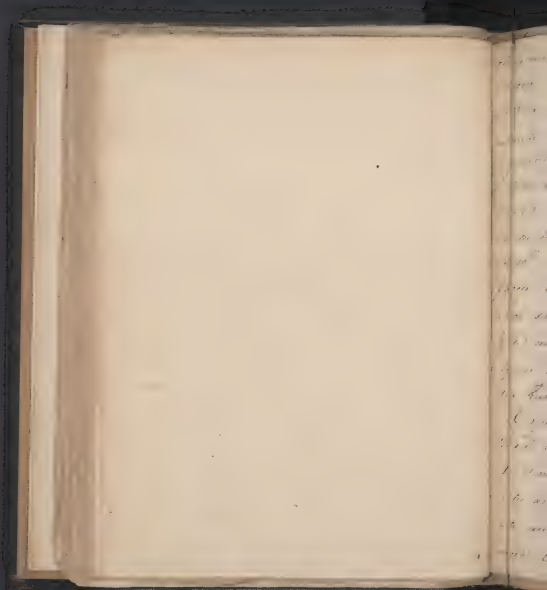
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room of the room, of which she took not the least  
notice. Though she is generally very impatient. She  
continued in the bath 20 minutes, the bath was  
considered very insupportable to her, & was given whereas  
a rise of the cat circulation. She returned a fine  
to the water to a great degree. I would  
very soon, but I was not willing to do so  
as much as she would. I know that in 1/2 of the  
room I left her, and was growing dark - At 6 P.  
each next morning I found her apparently well.

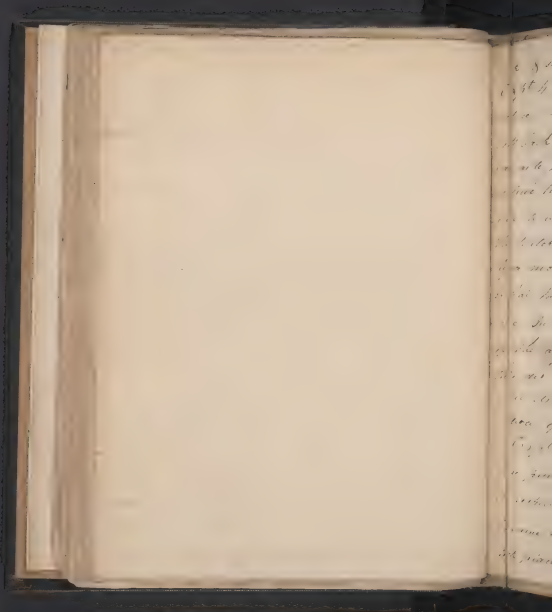
Experiment 2<sup>d</sup> On the next day I gave  
the same cat 1/2 of a saturated solution of the same  
& water. - She conducted this & several other experiments.  
I was assisted by the assistance of my numerous  
beloved student Mr. J. J. J. - In 2 minutes after  
the injection the cat became very restless, & began to  
which she had before her. For 1/2 of the time, I think  
and she abated. When she walked, she was  
and, between extremes in the, & her, as if her  
and in the. She now had a considerable





some discharge, which was said & blood comes out  
green. In the 3<sup>rd</sup> & 5<sup>th</sup> minutes she is very easy  
with a little, resembling the water. In the 6<sup>th</sup>  
minute she wants a great much stroke & greatly  
is wanting from the water. After the 6<sup>th</sup>  
she has a large lump of mucus about 2 inches in  
length, resembling a cucumber. She is very  
easy in the 7<sup>th</sup> minute & the woman says. In  
the 10<sup>th</sup> 16<sup>th</sup> & 21<sup>st</sup> minutes she is a little better  
easier. In the 31<sup>st</sup> minute she is a little better  
and she is greatly better. In the 31<sup>st</sup> I first see  
the red see red, in 2 days when she is very  
easy & is very easy and as much as usual as  
she has not nothing since the experiment.

Oct 3<sup>rd</sup>. The night of a laborer, and  
the red was given to a chicken more than 24 hours  
for 4 minutes it has an almost discharge, in 10  
minutes it is almost empty. 12<sup>th</sup> min  
ute another evacuation. It now looks as if it  
was to be given from side to side in a very



col 3. *Electro* for *electric* as if *elect* were

[illegible]

April 3<sup>rd</sup> - Saw signs of the "mouse" in the  
a, where, over the head of a mouse. The first  
a, where, was seen again, - the whole is, in fact,  
a, where, was seen again, - the whole is, in fact,  
a, where, was seen again, - the whole is, in fact,  
a, where, was seen again, - the whole is, in fact,

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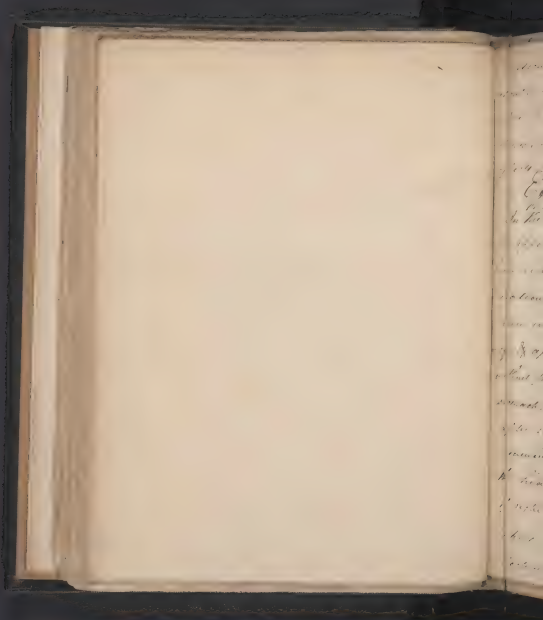
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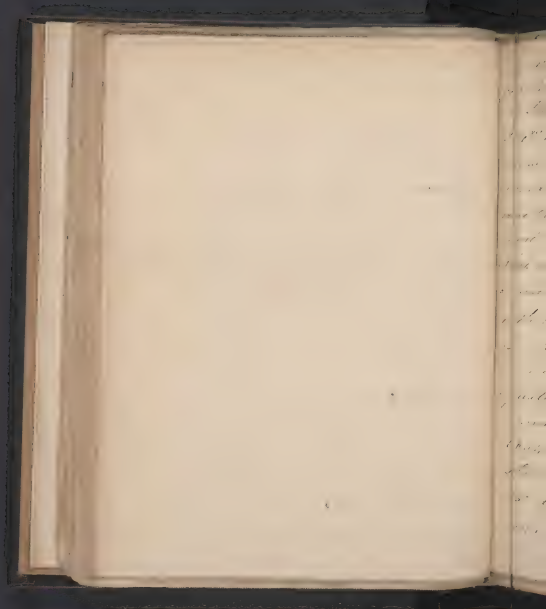
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Several other experiments were made, to determine whether oxygen gas could be drawn from the soil. I am now endeavoring to ascertain whether there are

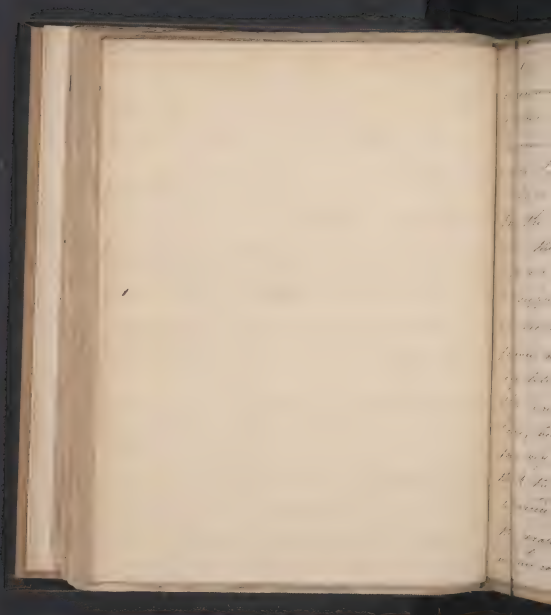








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for distant. The young man who first got to know  
of seeing some of the cost by him immediately suspected  
the cause of his malady for he had heard of its  
effects & sent for my Father. A Physician was  
sent for who got to the place nearly as soon as  
my Father. -- He arrived only in time to see  
him expire. -- He no longer recognized the conso-  
lating voice of a good Father, nor was sensible of the  
sorrows & cares of a distressed mother. The pupils  
of his eyes were dilated. His head & shoulders drawn  
forward by backwater -- & a forced & violent breath  
with blood flowed out at his mouth. A great  
quantity of the phlegm was drawn out by the  
syringe which afforded no relief. To convey him up  
to bed with the utmost difficulty. A Phy-  
sician gave him a large dose of P. B. L. (which  
was not weighed) to enable recovery, but it did no ef-  
fect. He then retired into a parlour into the chamber  
which was equally ineffectual -- He expired in a  
few minutes after this arrived. -- On examination

The time, in  
 from 1844 to  
 1845, was the  
 most successful  
 ever seen in  
 the State.  
 The cotton  
 harvest was  
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 off to a  
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 in the  
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 of 1845, the  
 best in  
 the State  
 of cotton  
 and so on  
 in 1846

the time, it appears that his death had, scarcely elapsed  
than two hours after he ate of the root. — The person  
was not affected by what he ate, either from the  
small quantity; or, perhaps the length, & acute  
character which my brother's situation occasions, may  
have had the effect of, preventing its action.

The other cases which I have heard of, were at-  
tended with symptoms very analogous to the preceding.  
In some instances I have been informed, that the prog-  
ress of death has been arrested, by the introduction  
of large draughts of new milk. But I have not  
been able to procure the history of these cases.

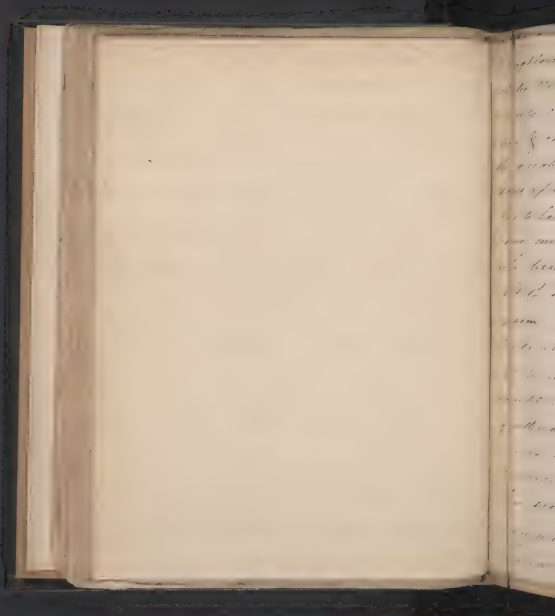
In the 3<sup>d</sup> volume of the American Philosophical  
Transactions, a case is related by Dr. Wm. Gougeon  
of Virginia, bearing the, poisonous quality of a  
plant which I have little doubt is the same which  
I have spoken of. In this I am confirmed by the  
opinion of the Professor of Materia Medica, who  
was so obliging as to furnish me with the book  
containing that case. — The only material cir-

1. *Lawrence*  
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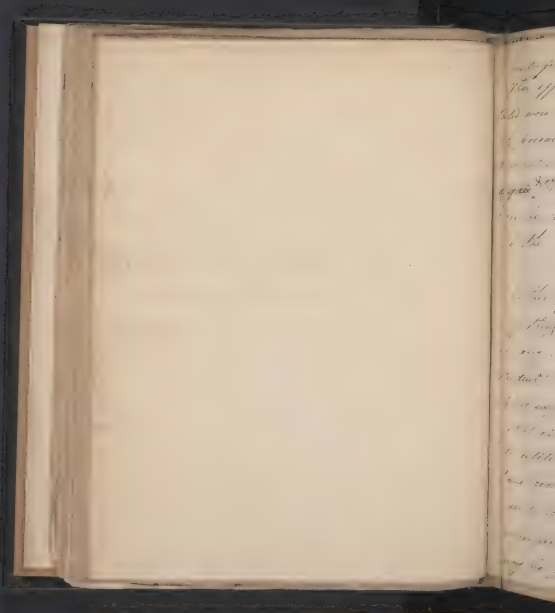


ference is that he writes *Le plant à rampe ou*  
*belly l'annee l'annee*, whereas I have only met with  
him in rich moist places. The plant which he de-  
scribes had the name of wild card, wild hawthorn,  
hence root & much seed root; he calls it *l'icuta*  
*devenosa*. As his case is interesting & well known  
the Librarian of Boston it:

[illegible]



[illegible]



meetings & talked to that extent in "Lectures"  
 The efforts in the case of the school I have re-  
 lated were not successful because the "Lectures" were  
 not, however, successful in the case of the school which was only  
 a small improvement for the same cause. Since the  
 day of the lecture on different contributions  
 even the introduction to new contributions the plants to  
 be the same

As to the medicinal virtues of this solid  
in the first, was experiment made to see if any  
very strong Action it had of its own, or in any  
in any way as a medicine; & was sufficient to  
stimulate, & excite the various Functions, & was  
found experiments with it, in several Cases, that  
it had it as a medicine, & no experiment against  
its utility; for some of the most successful medicines  
I have received encephalised in themselves, till we  
see the decided, & even violent Effects, & in some  
to make certainly facts the conjecture that it  
may be found an useful medicine. You saw

*[Faint, illegible handwriting on the left page of an open manuscript.]*

*[Faint, illegible handwriting on the right page of an open manuscript.]*

we learned Professor of Nat. Med. speaking of Sal-  
mo Carassus "Among these detestable articles, we are  
to look for the best preservatives of health? From  
its analogy to some other active articles, we may  
presume that it will be found beneficial in  
some of the diseases to which they are adapted.  
And as a small variation in properties may contribute  
very much to the efficacy of a medicine, may not  
this be one of the remedies which nature has es-  
-tablished for the cure of some disease, which has hith-  
heretofore been the opprobrium of Medicine? For  
the discovery of the disease to which it is adapted,  
no persons are so well calculated as the respectable  
Professors of this university, to whom I commit it &  
confidently hope they will not find the subject  
unworthy of their attention.

So much has been written on the means of pre-  
-venting the effects of poisons, that it seems unnecessary  
for me to dwell on that subject. I will only ob-  
serve, that as cases are reported to have been relieved

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invention.  
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which



by the use of new milk & sweet oil, that they deserve  
attention. But I by no means think they should be  
resorted to to the exclusion of other remedies. Although an  
emetic was ineffectual in the case noted, I attribute it  
to its not being given sufficiently early & should re-  
commend its administration if called in immediately  
after the poison was taken. — And as the application of  
tobacco to the epigastrium, as advised by S. Barton, has  
succeeded in causing opium to be ejected, when rational  
medicines have failed, I think it should not be neglected  
in this case.

To the illustrious Professors of this University, I now  
tender my most sincere thanks, for the permanent ad-  
-vantages which I hope I have derived from attending these  
interesting lectures. — I can not conclude without  
expressing my gratitude particularly to the Professors  
of Materia Medica & Anatomy, whose publick &  
private favors have made impressions on my mind,  
which shall never be obliterated.